(FILE 'HOME' ENTERED AT 11:08:25 ON 08 NOV 2002)

FILE 'MEDLINE, AGRICOLA, CANCERLIT, SCISEARCH, CAPLUS, EMBASE, BIOSIS, MEDICONF' ENTERED AT 11:11:21 ON 08 NOV 2002

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L1       102283 S CYTOCHROME (L) P450
L2          568 S L1 AND (ENCAPSUL? OR CAPSULE OR MICROCAPSUL? OR NANOSPHERE OR
L3           80 S L2 AND (CANCER OR TUMOR OR TUMOUR OR NEOPLAS?)
L4           46 DUP REM L3 (34 DUPLICATES REMOVED)
L5           46 FOCUS L4 1-
L6           46 SORT L4 PY
L7           13 S L4 AND PY<=1997
L8           13 SORT L7 PY
L9           13 S L6 AND GUNZBURG?/AU
L10          13 SORT L9 PY

=> d an ti so au ab l10 13

L10  ANSWER 13 OF 13  SCISEARCH  COPYRIGHT 2002 ISI (R)
AN   2002:503718  SCISEARCH
TI   Microencapsulated, CYP2B1-transfected cells activating ifosfamide at the
     site of the tumor: the magic bullets of the 21st century
SO   CANCER CHEMOTHERAPY AND PHARMACOLOGY, (MAY 2002) Vol. 49, Supp. [1], pp.
     S21-S24.
     Publisher: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.
     ISSN: 0344-5704.
AU   Lohr M (Reprint); Hummel F; Faulmann G; Ringel J; Saller R; Hain J;
     Gunzburg W H; Salmons B
AB       Background: Conventional chemotherapy of pancreatic carcinoma is only
     marginally effective. This is in part due to the severity of side effects
     following systemic administration of the cytostatic drug. The aim was to
     create a therapeutic tool allowing the targeting of the conversion site of
     a cytotoxic prodrug to the site of the tumor. This was realized
     by transfection of the CYP2B1 gene, the major ifosfamide-converting P450
     enzyme, in cells with subsequent microencapsulation and administration of
     these microcapsules to or into the tumor. The enzyme
     activity (resorufin assay) remained stable for weeks in vitro and in vivo
     within the microencapsulated CYP2B1-expressing cells. We demonstrated a
     significant antitumor effect of the intratumorally injected
     capsules against xenotransplanted human pancreatic carcinomas in
     the nude mouse. Angiographic experiments in the pig confirmed the
     feasibility of an intraarterial placement of the capsules into
     the pancreas. A clinical protocol was established and approved. Patients,
     material and methods: L293 cells were transfected with the CYP2B1 gene,
     micro-encapsulated (diameter 0.7 mm) under GCP conditions and
     packed sterile. Patients with confirmed inoperable adenocarcinoma of the
     pancreas underwent angiography, and capsules were injected into
     a vessel leading into the tumor. The patients were monitored for
     48 h to exclude allergic reactions or pancreatitis. A day later,
     ifosfamide was administered for three consecutive days to be repeated on
     days 21-23. The patients were followed up for 5 months. Results: A total
     of 17 patients were enrolled. The patients tolerated the procedure without
     any complications. No allergic reactions or pancreatitis were encountered.
     Chemotherapy was uneventful. All patients had stable disease, and two
     patients a partial remission. The median survival was 44 weeks which
     compared favorably with that of a historical control group (22 weeks).
     Conclusions: The intraarterial administration of microcapsules
     for targeted chemotherapy was well tolerated. Control of local
     tumor growth was achieved.
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